DOCUMENT RESUME

ED 329 432 SE 051 953

AUTHOR Ramjus, Harry
TITLE Intervention Strategies To Improve the Self-Esteem of Low Achievers in High School Science Class.
PUB DATE 90
NOTE 83p.; Ed.D. Practicum, Nova University.
PUB TYPE Reports - Research/Technical (143) -- Dissertations/Theses - Practicum Papers (043) -- Tests/Evaluation Instruments (160)

EDRS PRICE MF01/PC04 Plus Postage.
DESCRIPTORS Computer Assisted Instruction; Cooperative Learning; Educational Strategies; *Evaluation Methods; High Schools; *Incentives; *Motivation Techniques; Parent Participation; Peer Teaching; Science Education; *Secondary School Science; *Self Esteem; *Teaching Methods; Tutoring

ABSTRACT

In the practicum reported in this document, the self-esteem of low achievers in a high school science class was improved through the use of strategies such as personal self-referent verbal statements (PSRVS), group activities, incentive programs, motivation techniques such as computer assisted instruction (CAI) and parental involvement. A Self-Esteem Observation Checklist, designed for the practicum, was used to collect data from the target population regarding manifestations of low self-esteem. The intervention strategies were implemented on a regular basis every week for 12 weeks. Observations were made of any indication of changes in the students' self-esteem during and after implementation, using the Self-Esteem Observation Checklist. Included are a description of the community and work place, problem description, causative analysis, literature review, goals and expectations, outline, explanation of methodology, discussion and evaluation of possible solutions, results, and recommendations. A copy of the Self-Esteem Observation Checklist is appended. (Author/KR)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

Intervention Strategies to Improve the Self-Esteem of Low Achievers in High School Science Class

ED329432

by

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Harry Ramjus
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Harry Ramjus
Cluster 34

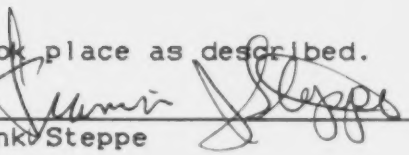
A Practicum I Report presented to the
Ed.D.Program in Child and Youth Studies
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Education

NOVA UNIVERSITY
1990

SE051953

PRACTICUM APPROVAL SHEET

This practicum took place as described.

Verifier: 

Frank Steppe

Science Department Head

Miami Southridge Senior High School

19355 S. W.114th.Avenue

Miami,Florida 33157

January 22,1991

This practicum report was submitted by Harry Ramjus under the direction of the advisor listed below.It was submitted to the Ed. D.Program in Child and Youth Studies and approved in partial fulfillment of the requirements for the degree of Doctor of Education at Nova University

Approved:

Date of Final Approval of Report

Georgianna Lowen,Ed.D. (Advisor)

ACKNOWLEDGMENT

In this practicum, there were several persons who gave the author invaluable support, guidance and assistance for it to be completed. Initially, the librarians who worked in the reference section of the Florida International University library helped the writer to do the necessary literature search. Special thanks to Mr. David Wilson. Dr. Georgianna Lowen, the writer's advisor, provided great suggestions and counsel in interpreting the practicum requirements and process. The administrators of his school, particularly Dr. Fred Rodgers, fully supported his efforts and gave him permission to undertake this practicum study. Ms. Susan Childers gave him useful suggestions in using the APA style of report writing and typed both the practicum proposal and report. Further, he would like to acknowledge his colleagues in the science department of his school for providing him with positive strokes. Last but not least, he is grateful to Melissa, his daughter, for typing the progress report for this practicum. He wishes to thank all these persons for their assistance and support. In this practicum report, it is his hope that all who care about low achievers will find much that will aid them to discover the joy and satisfaction of being with

these special children as they share the process of improving their self-esteem.

TABLE OF CONTENTS

		Page
ACKNOWLEDGMENT		ii
TABLE OF CONTENTS		iv
LIST OF TABLES		vi
Chapter		
I.	INTRODUCTION	1
	Description of Work Setting and Community	1
	Writer's Work Setting and Role	3
II.	STUDY OF THE PROBLEM	5
	Problem Description	5
	Problem Documentation	7
	Causative Analysis	9
	Relationship of the Problem to the Literature	11
III.	ANTICIPATED OUTCOMES AND EVALUATION INSTRUMENTS	18
	Goals and Expectations	18
	Behavior Objectives	18
	Measurement of Objectives	20
IV.	SOLUTION STRATEGY	22
	Discussion and Evaluation of Possible Solutions	22
	Description of Selected Solutions	32
	Report of Action Taken	40
V.	RESULTS, DISCUSSION AND RECOMMENDATIONS	56
	Results	56
	Discussion	61
	Recommendations	66
	Dissemination	67
REFERENCES		69

Page

Appendices

A. SELF-ESTEEM OBSERVATION CHECKLIST 74

LIST OF TABLES

Page

Tables

1. Indicators of Low Self-Esteem Manifested by Students 8

2. Data Table Showing the Number of Students Displaying Indicators of Self-Esteem After Implementation Compared to Those Expected to do so 59

3. Indicators of Low Self-Esteem Manifested by Students Pre and Post Observation 60

ABSTRACT

Intervention Strategies to Improve the Self-Esteem of Low Achievers in High School Science Class.
Ramjus, Harry, 1990. Practicum I Report, Nova University, Ed.D. Program in Child and Youth Studies.
Descriptors: Self-Esteem/Self-Concept/Self-Image/Self-Confidence/Low Achievers/High School/Science Class/ Personal-Self-Referent Verbal Statements/Group Activities/Computer Assisted Instruction/Peer Tutoring/ Parental Involvement/Motivating Techniques.

The writer designed and implemented several intervention strategies to improve the self-esteem of low achievers in high school science class. There were three corollary objectives to improve aspects of self-confidence, behavior and communication. A Self-Esteem Observation Checklist, designed by writer, was used to collect data from the target population (N=31) regarding manifestations of low self-esteem.

The writer then used personal self-referent verbal statements (PSRVS), incentives, group activities, computer assisted instruction (CAI), peer tutoring and parental involvement to help improve students' self-concept. These solution strategies were implemented on a regular basis every week for 12 weeks. Observations were made of any indication of changes in the students' self-esteem during and after implementation, using the observation checklist developed by the writer.

The outcomes of this practicum were very positive. All main objectives were achieved successfully and even surpassed in some instances. Generally, the results showed that the self-esteem of students may be enhanced with the correct intervention strategies. Additionally, there were unexpected gains. Some students from the target population were provided with leadership roles for the school.

CHAPTER I

INTRODUCTION

Description of Work Setting and Community

This practicum took place in a public senior high school. The institution draws its students from four neighboring junior high schools, which in turn serve 17 elementary schools.

The student enrollment is 2,803 students: 231 ninth graders, 865 tenth graders, 868 eleventh graders, and 739 twelfth graders. The racial/ethnic breakdown of this population is 873 White, non-Hispanic--31 percent; 1,102 Black, non-Hispanic--39 percent; 780 Hispanic--28 percent, and 48 Asian/American Indian--representing two percent. Further, 360 students--11 percent, receive either free or reduced price lunch, while 1,480 students--53 percent, are transported by county public buses.

The instructional staff consists of five administrators, six guidance counselors, one group counselor, one occupational advisor, one college assistant program advisor (CAP), two media personnel, one athletic director, one business manager, one activities director, five teacher aides, and 184 classroom teachers. Additionally, 33 employees provide

office, food service, custodial, and other support services.

The faculty has an average of 10 years teaching experience. Seventy-five teachers have master's degrees, two have specialist degrees, and six have doctoral degrees.

Student performance on the 1989 Student State Assessment Test (SSAT) was: reading--87 percent, writing--84 percent, mathematics--90 percent. These results represented an average increase of two percent points from 1988. However, the results of the Stanford Achievement Test (SAT) showed a decrease in students' performance in 1989 compared to 1988. For instance, in mathematics computation, the tenth grade median percentile in 1988 was 59 while in 1989, it was 57, similarly in reading comprehension, tenth grade median percentile in 1988 was 46, while in 1989 it fell to 44 median percentile. There was a similar trend in the performance of the eleventh grade students.

During 1988/89 school year, 136 students dropped out of school for various reasons, including economic, lack of interest, marriages, gang-related activities. Further, there were 2,439 indoor suspensions and 445 outdoor suspensions.

The institution is located in a suburban area, from which it draws 89 percent of its students. Eleven

percent of the school enrollment is drawn from rural areas. The community, which has a population of 42,000 people, is moderately densely populated. The majority of the residences are of low middle to low income workers. There are several government subsidized housing projects in the community. Twelve percent of the student population comes from families with incomes below the poverty line. Fifty-eight percent of the twelfth graders, 48 percent of the eleventh graders, and 30 percent of the tenth graders work to help supplement the family income.

The student population is drawn from a variety of cultural backgrounds. Forty percent of the population of this community is bilingual. The school helps to serve the community by having an Adult School Department, where courses such as English for Speakers of Other Languages (ESOL) and American History are taught.

Writer's Work Setting and Role

The writer is an instructor in the Science Department, where he teaches 150 tenth grade students in five biology classes. Three of these classes pursue a regular biology program, and two classes pursue a basic or fundamental biology course. The target population consists of 31 students, whose average

stanine is three, in one of the fundamental biology classes.

In the Science Department, the core curriculum courses are biology, chemistry and physics, which are offered on three levels: fundamental (basic), regular (average), and honors (high). Marine biology, earth, physical and general sciences, and ecology are designed as options for those students who don't wish to follow the main sequence, or as an additional elective, for interested students. Anatomy and Physiology, Advanced Placement Biology, Research V and VI are advanced or high level courses which follow the core curriculum complement.

The author's role is to help support the programs of the department, to help devise motivational activities for his students to get them interested in and curious about science. He sees his role as an interdependent one, in facilitating both students and colleagues. He further sees his job as helping his students develop confidence in their abilities, which should help them attain high levels of academic and social achievement.

CHAPTER II

STUDY OF THE PROBLEM

Problem Description

Twenty (20) members of the target population displayed one or more signs of low self-esteem or low self-concept. Specifically, the manifestations of low self-esteem were as follows. Sixteen (16) were reluctant to express any opinion during class discussion, 15 showed little or no class participation, three regularly acted as bullies, six continually displayed poor classroom behavior, eight submitted sloppy classwork on a regular basis, seven made little or no eye contact with teacher while engaged in class discussion, and 13 students made negative comments about themselves.

The author and his students were mainly affected by this problem of low self-esteem among the members of the target population. The writer was greatly affected because the problem prevented him from fully implementing his lesson plans for the class on a daily basis. Some activities, such as laboratory exercises, group work and discussion, could not be completed on time because of the refusal of several members of the target population to participate fully. Sometimes the students displayed much hostility toward each other,

impeding the smooth running of group work. The writer was also affected because test scores were regularly low, yet students seemed unconcerned.

The students were affected. Because of their low level of confidence, they did not freely express their opinion so that other members of the class could gain new ideas; the members of the target population did not apply themselves well to solving problems or in assuming responsible roles. The class, therefore, lacked role models.

Because of their lack of a good self-image and self-confidence, there was a fear that they would subsequently fail the biology course, forcing them to repeat it during summer school or next school year, when they could have been doing another area of study. Indirectly, parents/guardians were affected because of the accompanying problems associated with low self-esteem, both at school and at home.

This problem may not have been solved before because of lack of persistence by some teachers to help solve the problem. Those teachers who tried to solve the problem may not have succeeded because it may not have been scientifically studied and analyzed with the purpose of finding appropriate solution strategies. Previous efforts may have failed too, due to lack of parent/guardian involvement in the problem solving

process. The author's earlier efforts may have failed because the nature of the problem was not fully studied, because of ad hoc planning and lack of departmental input and support.

The problem, therefore, was one of low self-esteem among 20 low achieving tenth grade students in one fundamental biology class.

Problem Documentation

The problem of low self-esteem of the target population (N = 31) was documented through the use of the Self-Esteem Observation Checklist, designed by the author (see Appendix A). Table 1, Indicators of Low Self-Esteem Manifested by Students, shows information collected using this observation instrument.

Table 1

Indicators of Low Self-Esteem Manifested by Students

Indicators	Total
(1) Behavior	
(a) No class participation	15
(b) Displaying poor classroom behavior	6
(c) Slumping over desk/chair	4
(d) Habitually tardy for class	13
(e) Regularly absent from class	11
(f) Unwilling to work with classmates	10
(2) Communication	
(g) Reluctant to express opinion	16
(h) Speak in an incoherent, monotonous tone of voice	7
(i) Make negative self-appraisals	13
(j) Highly critical of classmates	6
(3) Self-confidence	
(k) Submitting sloppy or untidy classwork	8
(l) Little or no eye-contact with teacher	7
(m) Unprepared for class	10
(n) Expecting to fail course	12

The writer acknowledges that several of these behavioral manifestations may not have been necessarily due to low self-esteem. For example, frequent absences and tardies to school may have been due to several other reasons than low self-esteem, including

transportation problems, domestic responsibilities or illnesses. Slumping over chair/table may have been due to fatigue from illness, physical activities, such as working after school, or participation in sports activities. The reluctance to express opinions or participate in class may have been due to lack of knowledge about a specific topic or may have been due to language problems. Similarly, little or no eye-contact may have been due to shyness which may have been inherited and not necessarily influenced by the environment. But the sum total of all these indicators seemed to suggest that several members of the target population suffered from low self-esteem.

Causative Analysis

Generally, there were several causes for low self-esteem. The economic well-being of parents/guardians seemed to have affected their child's self-concept. Children whose parents were in low income brackets or who were on welfare and lived in socially unacceptable neighborhoods, such as those with drug problems, seemed to suffer from low self-worth. A low income family obviously could not, by ordinary means, provide adequate or high quality material things, such as clothing and shoes, for their children compared to middle income families. Children whose parents lived in government subsidized houses, or in small,

over-crowded houses, often felt ashamed or embarrassed about their status when compared to their more well to do schoolmates.

Additionally, children suffered from low self-esteem because they came from homes where the father or father substitute was absent. This often created a greater burden for the mother. She had less time to devote to her children's welfare, such as taking them on tours or to visit interesting places or events. These factors together seemed to have dampened their children's spirit and resolve, resulting in a low self-image.

Furthermore, children whose parents/guardians were migrant workers, refugees, illegal residents, wrong-doers, of low educational levels, or illiterates, suffered from low self-concept. Similarly, children who lacked positive recognition from their parents, relatives or friends lacked self-confidence. Negative criticisms from those with whom the child associated was another cause of low self-esteem. Because of those environmental experiences and conditioning, the effects of low self-esteem were often reflected in the classroom.

Specifically, the members of the target population suffered from low self-concept for several reasons. Some were continually ridiculed by their peers for the

way they groomed themselves, the manner in which they spoke, the responses they gave to questions asked, and because of where they lived. Several suffered from name calling such as refugees, fatso, shorty, dummy, faggot, idiot, bo-bo, addict, scatter-brain, LD, and stupid. Further, several did not get recognition for even small deeds or successes they had in class. Additionally, several members of the target population seemed to feel "left out" of the class, since they were not provided with opportunities to play more responsible roles. Over half the class experienced regular failing grades in their biology tests and other class activities. For these students, their self-confidence was low. Furthermore, those students who were regularly tardy to class or absent from school seemed to have had low self image.

Relationship of the Problem to the Literature

Self-esteem is variously defined as having a positive self-image, or a feeling of self-worth. Sometimes it is defined as feeling good about oneself or as feeling worthwhile as a person. On the other hand, to have low self-esteem is to feel worthless, good for nothing, a failure or lacking in some important way. This can result in feeling that one is silly, unlikable, unattractive, incapable, or even stupid. Williams and Stith (1980) defined self-concept

as "a picture of self," and ideal self "the possible goal toward which one is striving." Self-esteem is a measure of personal worth or value. Self-esteem, like self-concept, is a reflection of others' opinion and treatment of the child (Williams and Stith, 1980).

Research has revealed that children begin to mold their self-concept during the formative years. Each experience assists a child to organize and reorganize his or her self. For instance, the repeated behavior of significant others helps form the child's self-image. Thus, a child whose experiences are good and who is accepted unconditionally as an important person will begin to build his/her self-worth. This child will picture himself/herself as being wanted, loved, valued, worthy and important. These comments will help this child: "What a nice child you are"; "You're so much fun to be with"; "We love you so much"; and "What a great child you are." But significant others can also have a devastating effect on a child's self-esteem formation. If he/she hears nothing but negative, degrading comments, he/she will begin to believe that he/she is unworthy, unloved and unimportant. These comments create a negative self-concept in a child: "You are a bad child"; "You are good for nothing"; "You always make such a mess";

"You cause me so much stress"; "Can't you do anything right?" (Emerson, 1981).

Coopersmith (1967) developed a list of characteristics of a child who may have low self-esteem. These include fearfulness and timidity--the child is insecure about new challenges and very uncomfortable in social settings. Bullying and bragging are traits that may be used to mask a weak spot, soft center and trying to conceal the true inner feelings. Further, a child with low self-esteem may be unable to make decisions easily, which may be due to having past decisions continually rebuked and ridiculed. Also, this child expects failure. These expectations by the child may be due to an established pattern begun by him/her to gain extra attention or as a result of a sense of failures. Further, he/she may be reluctant to express an opinion due to past ridicule or lack of recognition for him/her.

As interest in the concept of self-esteem increases, researchers have found that the view of self determines achievement and enhances or limits the development of a person's potential (Clark, 1988). Generally, there are several causes for low self-esteem. When children socialize at school, they meet peers who represent a wide spectrum of personality types. These peers exert a great influence on each

other. Thus, when children are measured against each other, for instance, in accomplishments, there are feelings of competition which can retard self-esteem. Even the element of high standardized test scores serve to augment this predicament (The Miami Herald, 1988).

Furthermore, a child who gets all the attention he/she needs at home may perceive himself/herself as quite important. However, when he/she must share the teacher's attention with several other students, his/her self-concept may change as he/she perceives himself/herself as not too important. Eventually, if the child cannot adapt to the classroom situation, he/she may become a discipline problem (Williams and Stith, 1980).

A child's self-concept is also related to his/her masculinity or femininity or sex role identity. Sex role is defined as a person's conceptualization of his/her own degree of masculinity and femininity. For instance, an adolescent male who feels he is too feminine and who believes that to be an adequate person he must somehow be more "masculine" may experience a low self-esteem (Mischel, 1986). Sears, cited by Mischel (1986), found that sixth grade children, self-reported femininity was associated with poor self-concepts in both boys and girls. Williams and Stith (1980) believed that disadvantaged children

reflect negative attitudes of themselves, resulting in negative self-concepts. Their parents may provide less attention to the psychological aspects of life, resulting in lower motivation for improvement. Also, disadvantaged children may have fewer models with whom to identify, and they are more likely to stop trying to achieve. Bledsoe, cited by Williams and Stith (1980), found that fourth and sixth grade girls rated themselves significantly higher on a self-concept scale than boys in the same sample. It was concluded that one of the reasons may have been due to the greater availability of models for girls, in mother, babysitter, teacher, and grandmother with whom they are almost constantly in contact.

Additionally, Irwin, Rosenburg and Ziller, cited by Paterson, Kauchak and Yaakobi (1980), believed that students with high self-esteem are more consistent in displaying socially acceptable behaviors and are more independent of outside reinforcement. Whereas Jones, Ariche and Brach, cited by Paterson, Kauchak and Yaakobi (1980), felt that individuals with lower self-esteem tend to be more destructive, anxious, and stressful. The experiences of life, interaction with friends, police, school and relatives contribute to an individual's attitude about him/her self (McGough and Kazanas, 1979).

Further, some researchers have theorized that behavior assists in shaping one's self-perception. Certain school characteristics may influence students' self-perceptions in a positive or negative manner, for instance, the self-image of the teacher, behavioral traits, relationships with the students, teaching style and the classroom setting (Bossing and Sasseen, 1980). Lazarus (1982) concluded, based on investigation he did with fourth grade students, that shyness is significantly related to self-esteem. Coopersmith (1967) believed that self-esteem is derived from a multitude of factors such as abilities, attributes and values.

Meanwhile, there seems to be a moderate, positive correlation between self-esteem and school achievement (Watkins and Astilla, 1980). Additionally, self-concept, among other factors, seems to play an important role in determining students' attitudes toward science (Talton and Simpson, 1986). Also, Olsen and Shaughnessy, cited by Talton and Simpson (1986), suggested that there was much evidence that students' attitude toward science was related to self-esteem and the ability to learn. Similar to other researchers, these authors also believed that the home environment affected a student's self-image.

There is much debate among educators in regard to the real causal agent of low self-esteem. Does improved self-esteem function to improve academic achievement or vice-versa? Studies by Calsyn and Kenny, cited by Gurney (1987), showed no evidence that self-esteem enhancement improved academic achievement, but there was evidence that improved academic achievement bolstered self-esteem. Other researchers have found the opposite. Sweet and Burbach, cited by Gurney (1987), showed evidence that self-esteem enhancement could precede enhancement in academic achievement.

CHAPTER III

ANTICIPATED OUTCOMES AND EVALUATION INSTRUMENTS

Goals and Expectations

The following goal and objectives were projected for this practicum. The goal was for the self-esteem of the majority of the members of the target population to improve.

Behavioral Objectives

Over a period of 12 weeks, the students in the target population would achieve the following objectives.

Behavior Expected	Assessment Instrument	Standard of Achievement
(1) Behavior		
(a) Show active class participation	Self-esteem Observation Checklist	26 students
(b) Display acceptable classroom behavior	"	29 students
(c) Refrain from slumping over desk/table	"	29 students

Behavior Expected	Assessment Instrument	Standard of Achievement
(d) Habitually punctual for class	"	29 students
(e) Regularly present in class	"	27 students
(f) Display willingness to work with other students	"	29 students
(2) Communication		
(g) Students will express their opinion	"	25 students
(h) Speak in an audible, coherent way	"	27 students
(i) Say positive things about themselves	"	26 students
(j) Speak to each other in friendly terms	"	26 students

Behavior Expected	Assessment Instrument	Standard of Achievement
(3) Self-Confidence		
(k) Submit clean, tidy and organized work	"	28 students
(l) Will have direct eye contact with teacher	"	27 students
(m) Be well prepared for class	"	27 students
(n) Express positive views of being successful in weekly tests	"	26 students

Measurement of Objectives

The measurement of the behavioral objectives was to be done using the Self-Esteem Observation Checklist, designed by the author (see Appendix A).

The students were to be carefully observed during and after the implementation period to see the effects (if any) of the intervention strategies. They were to be observed from the point at which they started arriving in the classroom, during discussion sessions, drill and practice sessions, group activities such as

labs, while working on individual assignments and during the time that tests and other assignments were returned to them. All indicators mentioned in the Checklist were to be carefully monitored to see their occurrences, changes, patterns and consistencies. The writer was to record all observations for each of five school days following the implementation phase. He was to be as objective as possible during the observation period. The total number of students manifesting each behavior change was to be recorded. At the end of the observation period, the number of students displaying each indicator was to be averaged for the class. The average number would serve as the post-observation data for each indicator (see Table 2).

The Self-Esteem Observation Checklist, evaluation instrument, was selected in order to give as accurate result as possible from the implementation process. It allowed for a wide scope of observations which could be done in almost every activity in which the students were involved in class.

CHAPTER IV

SOLUTION STRATEGY

Discussion and Evaluation of Possible Solutions

The majority of students in the target population suffered from low self-esteem. Several researchers have tried to solve the problem of low self-esteem using various strategies. For instance, Houseman, cited by Gurney (1987), encouraged his students to use positive self-referent verbal statements (PSRVS) during class discussions. Subsequently, their students practiced these activities on a regular basis. PSRVS experiences led to improved self-esteem scores, which were of statistical significance.

Further, Gurney (1987), working with boys who displayed little self-control, over a six week period, found that the frequency of PSRVS could be greatly increased in the experimental group. This was related to significant increase in self-esteem as reflected on the post test. The researcher concluded that changes in the frequency of PSRVS appeared to be helpful in relation to the enhancement of self-esteem. Evidence showed that the effect persisted over time. Several other researchers, including Marston, Phillips, Danzig and Rose, cited by Gurney (1987), have concluded that a

statement about "self" is a good measure of one's self-concept.

Similarly, Robeck, cited by Williams and Stith (1980), has found that social reinforcement through positive comments and praise has proven even more helpful. Encouraging students learn to praise themselves through suggestion of appropriate self-reinforcement comments has been effective in increasing feelings of self-worth.

Meanwhile, Bossing and Sasseen (1980) used a variety of intervention techniques over an eight-week period to improve the self-esteem of fourth grade, low-achieving students. The researchers use praise among other strategies to enhance self-esteem. For instance, "Student of the Week" was chosen, positive reinforcement forms, statements and certificates were sent home to parents, special seals and stickers were awarded, each child wrote an autobiography, a complimentary box was placed in the rooms, and a "Happiness" book was made with each child's name in it. In this book happy things were written about each child.

Further, the researcher used the Development Understanding of Self and Others (DUSO-D-2) kit, which contained puppets, tapes and charts. This kit made use of an inquiry and discussion approach to learning.

Other activities included role-playing and puppetry. The results of these strategies showed significant improvement in students' self-esteem. Consequently, the attitude of the students seemed to improve student-teacher relationship and academic achievement.

Additionally, several experimental studies have focused directly on the building of self-esteem as a part of the curriculum. Daly, cited by Gurney (1986), investigated self-esteem and its relation to other variables in the Intensive Education Program, over a 40 week period. The experimental group consisted of high risk students, of whom the majority was black; the control group was "low risk," with the minority being black. The results showed significant increase in self-esteem for the experimental group compared to the control group.

In another study, Eldridge, cited by Gurney (1986), reported an experiment conducted with 211 students between eight and 12 years of age, who had experienced a group guidance program entitled Development Understanding of Self and Others (DUSO). At the conclusion of this investigation, an improvement in self-esteem was observed in comparison with the control group.

Other strategies have been tried by other educators to enhance low self-esteem of children.

Ammerman, cited by Gurney (1986), reported an investigation in which he used a self-portrait photography project, over a five week period, to build the self-concept of fourth grade students. The results showed that experimental group pupils increased their behavioral self-esteem scores significantly over the control group. Another researcher, Fenton (1981), used several intervention strategies to enhance self-worth. For instance, students were given a "Who's Who?" sheet on which they pasted or drew a picture of themselves and then cut and glued pictures of themselves, then cut and glued words and pictures from magazines that described who they were. They were also asked to make a personal "coat of arms" that was divided into five parts. On the coat of arms, students drew pictures of what they did the best, what they wanted to be better at, what they most liked about others, and what they would like to be several years later. In the fifth section they wrote the words they would like people to use in describing them. The results indicated significant improvement in pupils' self-esteem.

Computer Assisted Instruction (CAI) has been widely used in most subject areas by several educators to motivate students, consequently improving their self-esteem. For instance, Woodward, Carnine and Gersten (1988) used CAI in health to significantly

improve the self-confidence of a group of high school learning disabled students. Similarly, Roblyer, Castine and King (1988) found that CAI in science not only improved students' achievement levels but also their self-concept. Further, Hooper and Hannefin (1988) determined that the achievement and self-concept of low ability students improved significantly using CAI. In their research these authors paired low achievers and high achievers together. There was no accompanying reduction in the attainments of the high ability students. The authors concluded that potentially there was much to gain in developing self-assurance in socialization and interaction by cooperative heterogeneous grouping during CAI.

Emihovich and Miller (1988), in a study to determine among other things the effects of CAI on a group of minority students, found that self-worth improved significantly. Also, Hines and Seidman (1988), in a research involving 336 undergraduates, most of whom had never taken a computer course, found that self-concepts improved for the target population but more so for those who had taken a computer course before.

In another study on CAI, Robertson (1987) evaluated the effects of this type of instruction on learners' global self-esteem, using over 1,000 home

economics students as participants. The self-esteem of the group, measured by the Likert's scale, showed significant improvement. Meanwhile, Dalton and Hannefin (1985), in studying the effects of judgmental and non-judgmental CAI feedback on self-esteem and mathematics achievement of remedial level junior high students, found no statistically significant difference in achievement among the students in the treatment group. However, the authors found that on the average self-esteem scores increased slightly for all the treatment group.

Furthermore, several educators have used peer teaching to help improve self-esteem. Generally, both tutors and tutees seemed to have developed more positive attitudes toward school and toward themselves. For instance, Price and Dequine (1982) did a study in which low-achieving students served as tutors in a reading class for non-English speaking students. As a consequence of that experience, the tutors experienced significant gains in self-esteem, basic reading skill and vocabulary.

Also, Lazerson, cited by Land (1984), conducted a research which examined gains in self-worth and improvement in behavior for 60 students. The target group included children who were aggressive and/or withdrawn. These students were paired with other

students with similar problems. At the end of the five week experiment, the majority of active participants showed higher gains than the control group in self-concepts and made greater behavioral improvement.

Cohen and Kulik (1981) summarized nine studies which explored the effects of tutoring programs on tutee self-esteem. The self-image was more positive for pupils in classes with tutoring programs as shown by seven of these students. But Hailey, cited by Land (1984), conducted a study with 104 students to see the effects of cross-age tutoring on self-esteem and mathematics achievement. Fifty-two of these students were high achieving eighth grade mathematical students, while 52 were low-achieving fourth grade students. They were randomly selected. The students were then randomly divided and assigned to the experimental and control groups. The experimental group was involved in tutorial sessions for 30 minutes each day, three days a week, for a six week period. The results showed no significant difference for achievement or self-concept for the tutors as compared to the eighth grade students who did not tutor. However, a significant difference was found for achievement and self-esteem for the tutees as compared with students who were not tutored, at the 0.05 level.

Another solution which has been widely used in the enhancement of low self-esteem is parent involvement. Several researchers have used this method with varying degrees of success. Henderson (1987) examined planned parental involvement as part of an affective education program. The author assigned fifth and sixth grade students (N = 231) from two schools to three groups, namely affective education group; affective education and parental involvement group, or control group. The posttest showed greatest improvement in self-esteem in the affective education and parental involvement group.

In another study done by Sullivan (1983) to assist Hispanic students among other goals increased feelings of self-esteem through various strategies, including parental participation, only partial success was obtained in terms of the stated objectives. The author believed that insufficient data were collected to assess fully the success of this study.

Additionally, cooperative learning or small group learning has been used as an intervention strategy to help improve self-esteem. Ascher (1986) believed that cooperative learning methods appeared to foster better student achievement than individualistic methods but also to improve students' self-concept and positive attitude toward other students and the school. The author recommends six cooperative learning techniques.

These are: Student Teams-Achievement Division, in which students in four-member heterogeneous teams take individual quizzes and receive a team score based on the extent to which each student improved; Teams-Games-Tournament, in which learning teams compete and the scores of each student contribute to the team score; Teams-Assisted Individualization, here teams are provided incentives on the basis of math units mastered in all team members; Jigsaw I and II, where individual students become proficient in particular sections of a lesson and then proceed to teach their peers; Learning together, in which pupils work in small heterogeneous groups to complete a common worksheet; and Group investigation, in which groups choose subtopics from a class unit and further break their subtopics into individual tasks to prepare a group report to the entire class.

Slavin (1980), reviewing current research in cooperative learning, concluded that small-group cooperative learning methods have improved, among other things, the self-esteem of students. Butler (1980), working with fifth and sixth grade students (N = 56) showing depression symptoms, found that group activities involving role play was most successful of the four strategies used to enhance the self-concept of the students.

The researchers on self-esteem feel that the building of self-esteem is an on-going process. But it can be influenced both positively and negatively; because it grows, it can be nurtured.

Emerson (1987) believed that the secret of education lies in respecting the student. This gave support to Coopersmith's (1967) study on self-esteem. Being able to respect students' ideas is a virtue. This will consequently lead to a feeling of well-being on the part of the student.

Canfield and Wells (1976) established certain guidelines and strategies that are necessary for improving self-esteem. They noted the need for consistency in teacher attitudes. They also acknowledged that the task of building and maintaining self-esteem is a challenging one. Among the attitudes teachers should develop are:

(1) Recognize the positive attributes of the child.

(2) Show genuine interest and concern in the students' education.

(3) Believe that the child's self-image can change.

(4) Rapport with the child should be such that the child perceives teacher as a significant other.

Further, to nurture the growth of self-esteem the learning environment is of paramount importance. There should be trust, openness, support and warmth.

Description of Selected Solutions

The author attempted to solve the problem of low self-esteem using a combination of ideas gleaned from the literature. The main intervention strategies that were tried are as follows:

(1) Positive self-referent verbal statements (PSRVS). He tried one exercise per week for the 12 weeks of implementation (see Calendar Plan). For instance, the first week of the implementation period "Bragging" was done to encourage students to think about their own positive attributes. Each student was allowed about two minutes to "boast" about anything he/she wants to do, for example, accomplishments, awards, skills, things he/she does well, personal characteristics. The students were asked not to interrupt or make sarcastic comments while listening to each other. When all the students made their contribution, the author asked the students to share whatever feelings they had about their bragging. This activity was implemented in two days. Each of the 12 PSRVS was similarly treated, with necessary variations taken into consideration.

These PSRVS activities were selected as a strategy to build self-confidence in the students. The writer believes that students felt good about themselves when they discovered those things about themselves that were positive and growth-promoting. If they were going to be fully self actualized, then it was imperative for them to learn to express positive feelings about themselves. When students recognized their strengths and assets and also identified the good attributes of fellow students, they seemed to reflect more pleasant thoughts about themselves and their abilities. PSRVS activities created an increased sense of group support and rapport. Self-referent verbal statements served as self-fulfilling prophesy. The more often students said good things about themselves or heard good things about themselves, the more they seem to believe in themselves and act accordingly. When they were faced with challenges, they seemed to reach deep down in themselves, and with a little self-control, overcame problems.

PSRVS activities were justified on the grounds that students in the target population were negatively criticized and ridiculed by their classmates on a regular basis. They were subjected to name calling and verbal abuse by them. This solution helped to

counteract and reverse the effects of these negative experiences in the class.

(2) Incentives Program. This program included praise, immediate feedback to students, student of the week, teacher assistant of the week, leadership responsibilities, homework off-night, and bathroom passes. For instance, praise was provided by teacher to students who participated, turned in work appropriately completed, arrived to school on time, said positive things about themselves and other students. Praise took the form of a good comment, stickers, happy face, hand clap, pat on the shoulder, a note to take home to parents, an approving smile, a handshake.

For the "student of the week" activity, the names of all the students were placed in a box. Each week, in front of the class, the names of the students were drawn from the box. The student whose name was drawn became the "student of the week." The other students were asked to say things they like about that student. Good qualities were emphasized. The list of qualities were written on chalkboard. This student was asked to bring to the class a picture of himself/herself. This was placed on the bulletin board. He/she was asked to be the teacher assistant for the week to hand out

papers, write on board, organize table, among other things.

Incentives programs were chosen as a solution in order to provide motivation for students to achieve class objectives. Incentives or rewards often "sweetened labor" and all legal means to encourage students to extend greater effort were tried. This solution seemed justified because most members of the target population lacked recognition for their contributions, efforts or accomplishments in the class. This program encouraged students to participate in class activities, submit clean, organized work, to be well prepared for class, and to express positive views about their success in the class.

(3) Group Activities. In group activities, students met in small groups of three to four students to participate in several activities to help promote positive self-esteem. Group activities included: "Tell others about you," "Share something that you cherish," and "I'm proud" (The Miami Herald, 1988). These activities were parallel to some of those in PSRVS activities but confined to small group sessions, unlike PSRVS activities which were mainly done with the entire class.

For example, "I'm Proud" was done as follows: Students sat in a circle surrounding one member of the

group (the focus). The "focus" person made an I'm proud statement, such as "I'm proud that I . . ., I'm proud that I can . . ." Each student in the circle then validated the "focus" person by making a positive statement in response. Each student took his/her turn to be the focus. The teacher asked questions such as: "Did you learn anything new about each other? How did you feel when you gave validation? Received validation?"

Group activities were selected to encourage students to accept and develop positive relationships with each other. This solution facilitated social development. Students who were shy and withdrawn found it difficult to express their opinion in large group situation. The small group was ideal to encourage these children to express their opinions and views. Small groups provided a forum for developing confidence and acceptance by other group members, which helped to build their self-assurance. Group activities were justified because students frequently suffered from "name calling" in the class. An opportunity to know each other closely seemed to help dispel fears, mistrust, and alleviate misunderstandings.

(4) Motivation Techniques such as Computer Assisted Instruction (CAI) and Peer Tutoring. In the CAI, students worked in groups of two, with Apple

Computers, using Software programs in biology published by Focus Media, Incorporated, New York. These programs combined features of drill and practice and games. Each lesson was a self-directed learning experience and required little training for usage. The student had to answer a series of multiple choice questions based upon the topic in biology being studied. Because the graphics were in color and sound was available, students were easily attracted to the programs. The game provided an added incentive to implement the program properly; it was only allowed if questions were answered correctly. The user had the opportunity to "discover" the answer to a question, if he or she were not sure, before actually attempting to answer the question. In this regard, direct instructions were provided to the student. The program communicated with each student directly by asking for his/her name to start the program. Because of these things, the program was motivating to students and addressed their individual learning styles--visual, auditory, tactile, and tutorials. These programs also allowed for peer tutoring as students who were more familiar with computers and the lesson content assisted those who were less familiar. Both students benefitted in this relationship.

CAI and peer tutoring provided students with the opportunity to develop confidence in themselves. The software programs provided the students with friendly competition and incentives. These facilities boosted their self-image and confidence levels.

CAI and peer tutoring seemed justifiable because students in the target population frequently experienced failure in class assignments. Solutions of this nature gave them a feeling of success and importance. Because the computer programs reinforced what was taught in class, the targeted students were more successful in class tests and other assignments. Peer tutoring helped to develop responsibility in students and respect for each other. Students were sometimes more effective in assisting their classmates than the teacher, because they seemed to have been more ve in the class "culture" than the teacher.

(5) Regular Parent Involvement. In this solution parents were informed about problems of low self-esteem in the class, not necessarily singling out their children. Their ideas for solving the problem were sought. Their role was then defined by the author, who monitored their efforts through school and telephone conferences. In a few instances, weekly progress reports of their child were sent home to parents so

that they could monitor their child's attendance patterns, effort, behavior, and academic grades.

This solution was considered for improving students' self-esteem because students often felt better if both parents and teachers were concerned about their welfare. They felt that both parties were striving to help them succeed. When parents knew what efforts were being made in the classroom to assist their children, they often cooperated with the teacher to further enhance the process. Their ideas and suggestions helped complement the teacher's efforts, culminating in better interrelations with parent, teacher and child.

This solution was justified because several members of the target population were frequently tardy to class and/or absent from school. The improvement in attendance and punctuality helped prevent guilty feelings in students and improve their self-image. It also made them feel they were part of and belonged to the class.

The writer believes that these intervention strategies improved low self-esteem for the following reasons. Most of the resources used during the implementation phase--materials and manpower (student and teacher), were readily available in his school. There was no need to spend money on any resource. The

solutions contemplated were all student-centered. Additionally, students responded positively when special efforts were being made to arouse their interest, despite the "halo effect." Further, students were exposed to a wide variety of strategies which arrested and maintained their motivational levels. These ideas all worked well in the writer's setting, with the type of problems identified and without much external dependence. Most of the solution strategies helped to develop the affective domain of the students.

Report of Action Taken

During the implementation phase, there were five main groups of intervention strategies that were used to help the members of the target population to improve their self-esteem. For each of the 12 weeks, several activities from all the solution strategies were done.

(a) PSRVS Activities

At the start of the first week, a film entitled "Improving Your Self-Esteem" was shown to the class, after a brief introduction about one's self-esteem. The film, shown for 15 minutes, depicted a group of adolescents who had several problem situations at home and at school. These situations affected the way they felt about themselves, their relatives, and their friends. But with corrective measures taken by their

teachers at school, they began to take care of their lives and soon realized the benefits.

There were 12 positive self-referent verbal statements ((PSRVS) activities that were done. One of the 12 activities planned, "What's the Most Important," had to be postponed during the week of Thanksgiving because of a short school week. These activities were conducted with the entire target population (N=31).

During week one, the PSRVS activity, Bragging (Canfield and Wells, 1976), was done. Students were told that they had two minutes to brag about anything he/she felt like doing, in his/her life-accomplishment, awards, skills, things he/she did well, personal characteristics. Some students bragged about their part-time job, their car, their personality, about placed they had visited, about important relatives, about their parents, their siblings, their clothes, and much more. Occasionally, the writer had to stop them from consuming more than their allowed time. About six students refused to brag, probably because of religious reasons. The names of these students were recorded in the journal. Much smiling accompanied their bragging. Initially, there was a hesitancy on students' part to brag, but soon the stage fright seemed to disappear and bragging was easy.

During week two, the class did "Pride Line" (Canfield and Wells, 1976). Each student was given one minute and was asked to make a statement about a specific area of behavior, beginning with "I'm proud that I . . . ." The writer suggested to the students examples of what could be used. For example, things they did for their parents, for a friend, work in school, something bought recently, habits they have, something shared, something owned, something done for the environment. The writer set the pace by starting off on an example of something he was proud of doing. Because of the time allowed for this activity--35 minutes--some students were not able to participate. However, these students who did not participate in "Bragging," in week one, were encouraged to take part, which they did, after some prompting.

In the third week, the activity "Success Day" (Canfield and Wells, 1976) was done. For the last 10 minutes of class, students were given about 30 seconds to share with their peers any success they had experienced that day. Students who found it difficult to share orally were asked to write it on a sheet of paper. The writer collected and read them to the class. Three male students who initially claimed that they had no success were quickly reminded by their friends that they were in school on time, that they had

done their homework, and that they were well prepared for class. One student was reminded that he got his first "B" on a test in an earlier class. As an offshoot of this activity, the writer's classes are now asked to write, at the end of a lesson, what they had learned (last three minutes of class). This seems to be a good technique to review but also provides the student with a sense of achievement. Knowing what he/she is learning seems to positively affect development of self-image.

During week four, the class shared in the activity "Success Symbols" (Canfield and Wells, 1976). Each student was asked to bring to the class two or three objects that reminded him/her of past successes or accomplishments he/she has had. Over half the class (20 students) brought in one or two pieces of success symbols--certificates, trophies, tokens, T-shirt, pens, books, rings--that they had received for past successes. Two students who could not locate an important artifact asked their parents to write a note certifying that they had these success symbols. The students shared with the class their successes. They were encouraged to share with the class their feelings and the meaning associated with each specific object. Those students who did not have an artifact were asked to write on a sheet of paper two/three success symbols

they would like to acquire before graduation day. The writer encouraged those students to set goals for themselves whereby they could achieve those successes. A note was made by the writer of the names of the students who brought in success symbols and those who did not. He awarded at the end of the week a certificate for those students who were successful in something for the class. He did so especially for those students who had no symbols originally, to help motivate them.

Additionally, the activity "Meaningful Symbols" (Canfield and Wells, (1976) was done during week five. The chalkboard was divided into 29 sections, and each student was asked to tape a symbol (drawn earlier) of something that was important and meaningful to him/her. This symbol could represent something he/she was concerned about, liked, disliked, or loved. Their symbols were noted in journal. Some interesting ones included graduate cap and gown, money, a sport car, a college certificate, a boat, family, a house, baseball bat. Some students were asked to explain the meaning of their symbols to the class. This activity took two sessions in week five instead of one as was planned originally. Students willingly agreed to do their planned science lesson for homework instead.

During week six, the activity "Object Sharing" (Canfield and Wells, 1976) was done. Students were asked to bring an object to the class and share their feelings about it with their peers. Objects brought included photographs, rings, bracelets, cups, toys, calculators, sweaters, and earrings.

The Card Game (Canfield and Wells, 1976) was done during week seven. Here students were first shown two unfinished sentences then asked to make their own, the way he or she wished. The two unfinished sentences given were "I am happy because . . . ." and "School is . . . ." This activity generated much amusement as at first some students gave "funny" responses. Later, they became more serious. The activity "Positive Feelings" (Canfield and Wells, 1976) was done during week eight. Students were asked to tell the class about something that let them feel good. Those who were reluctant to talk were asked to draw what let them feel good. Halfway through the activity, students were asked to relate something they did for someone that made that person happy.

Continuing, "Positive Support Techniques" (Canfield and Wells, 1976) was done, during week nine. At the end of group activities, students were asked to give some feedback to their peers, such as "It made me feel good when . . . ." and "We achieved much today

because we . . . ." The students who were complimented were told to share a few things that other students said to let them feel good or successful. Students were encouraged to be courteous and polite to each other by saying "I thank you," "I appreciate," and "I love you" statements. The writer set the pace by making similar statements to his students, who responded with more respect.

Meanwhile, "If I Could Choose to be . . . ." (The Miami Herald, 1988) was done during week 10. The students were given examples, such as "If I could choose to be a game, I would be . . . ." Why? "Because . . . ."; "A fruit I would be . . . ." Why? "Because . . . ." "A flower I would like to be . . . ." Why? "Because . . . ." The class schedule only allowed for 15 students to share in this activity.

Week 11 was a short one because of the Thanksgiving holiday. However, the PSRVS activity for that week, "What is the Most Important" (The Miami Herald, 1988), was postponed until week 12, when it was done along with the activity "I Caught Someone Doing Good" (The Miami Herald, 1988). In the former activity, students were given a list of items such as Helping at Home, Winning at Games, Watching T.V., ,Being on Time, Being with my Friends. They were to write a "V" next to the items that were very important to them,

"I" next to the things important to them, and "N" next to the things that were not important to them. They were asked to discuss whether any of the answers surprised them and what they had learned from thinking about what was important to them. During the final PSRVS activity, "I Caught Someone Doing Good," students were asked to paste a sheet of paper on the wall in the classroom. At the top of it was written "I caught someone doing something good." As soon as someone did something good, he/she was expected to write the name of that person on it. Toward the end of the week, the names of those students were read, and their "good" was positively reinforced by a short discussion. Special recognition was given by the writer for what they did.

Not all students had the opportunity to participate in all 12 PSRVS activities. However, as much as possible, each member of the target population participated in at least five activities. The writer encouraged those students with more indicators of low self-concept to become more actively involved.

(b) Incentive Activities

Throughout the duration of the implementation period, students were provided with a wide variety of incentives for positive efforts made in class. These incentives included praise for work completed on time, neatly and thoroughly; teacher assistant of the week;

leadership responsibility to distribute papers and lead group sessions; homework off night; and bathroom passes for proper behavior. Every opportunity was grasped to say something positive about each student's completed assignment, correct behavior, punctuality and regularity of attendance, and participation in discussion. The writer used comments like "I missed you yesterday," "Thanks for coming early today," "That's a great answer; I could not have done it better," "The school would not be the same without you."

On an interesting note, during the third week of implementation, while involved in a class discussion, the writer said to a male student, who responded well to a question, "Love you!"; his reply, "But you are a male"; the writer's reply, "This is a teacher's love." He seemed grateful for the affection, and the class seemed a little amused with the dialogue.

One of the main activities carried out throughout the implementation period was the student of the week. Obviously, only 12 students were selected, but the idea will continue on, to allow other students to enjoy this recognition. The student of the week had the added incentive of writing on the overhead for the teacher, one night off without homework, and his/her picture on the bulletin board.

"Smiling faces" was also regularly used for good, neat work as this incentive continued to be much appreciated even by adolescents. Stickers like "Super job," "Good job," "Excellent work" were also awarded to students. Occasionally, candies were given to students.

Incentive activities went according to plans. The recipients were generally appreciative of the recognition they received. The writer is convinced that students of all ages still require a "dose" of incentives to continue to boost their motivation levels. Incentive awards do not need to be costly. It requires just a little thought and effort. The timing for each award must be right, and incentives should not be too generous, as they may lose their value.

(c) Group Activities

There were eight small group activities that were carried out during the implementation period. These included "I'm Proud," "Tell Others About You," "Share Something that You Cherish" (The Miami Herald, 1988). Students were randomly selected and placed in a group of four students. One person was the leader, one the secretary, one the reporter, and the other the resource person. The leader led the group discussion, the secretary did the recording, and the resource person did the graphics, collected the materials to be worked

on, and facilitated group presentations. The reporter presented the findings of the group. In this way, everyone was involved. Group activities were formatted off cooperative learning groups. Group activities dealt at first with the affective domain, then the academic (cognitive) domain.

Group members were reassigned after two activities to allow more students to know each other. The writer ensured that group roles were also exchanged so as to allow students to maximize their full potentialities. Although only eight group activities were done, they continued at least once per week for the implementation period, since some activities used up more than the 25 minutes scheduled for in class. The uncompleted group activities continued the next assigned session of the following week.

The first two sessions were used for training. Students at first were somewhat hesitant to work with other students, some were nervous about reporting. However, with some encouragement and persuasion, by the third to fourth session, things had started to fall into place. Students seemed less intimidated, more friendly and accepting of students of different racial backgrounds.

Students met in their groups and discussed their assigned topics for 15 minutes. After this, the

reporter from each group gave a brief presentation of the findings of the group. The report was submitted, with the names of all group members, for a grade. All members of the group were given the same grade.

(d) Motivating Techniques--Using Computer Assisted Instruction (CAI) and Peer Tutoring

These activities were implemented 10 times during the implementation process. They became one of the highlights of the practicum. Fifteen of the students (N=31) had no prior computer experience. The first session was spent pairing up the inexperienced students with the experienced ones. They worked on Apple II computers, using software programs in biology published by Focus Media, Incorporated, New York. The writer first demonstrated the starting up process-loading, turning on and gave basic instructions about the computer and disks. The software programs were relevant to what the course objectives were for that week, for example: Excretion, Respiration, Skeleton, Digestion, The Endocrine System, Blood and Circulation. The programs were self-directed and user-friendly. They were tutorial programs that assumed students had been studying a given topic in biology. The writer asked students to choose 12 multiple choice questions at first and to try and answer them correctly. If they were not positive about an answer, they could use the

"Help" feature to try and get it. If their answers were correct, students could play a "fun" game, for which they could improve their score.

Students followed instructions well. They displayed great enthusiasm for the experience. They literally reminded the writer of which day he had scheduled to take them to the computer laboratory. Students spent a full class session working at the computer, in pairs. The peer tutor seemed to have done a good job, too, since by the second lesson, the tutee could "boot" up the computer and get it going. The program awarded points to each student for answering questions correctly. Their final grades were based on their total points for each class.

The positive response to this solution strategy may have been due to the polite way by which the computer responded to each student. Even when a question was answered incorrectly, the student was not embarrassed by it. The computer would say "I'm sorry that's not the right answer, please try again." Or, "Would you like a little help?" On several occasions when the bell rang for students to change class, they were still working at the computer

One problem found during this activity was that the software programs on Excretion and Respiration were incorrectly labeled by the producers. The writer had

not previewed those programs before class time, and students were instead presented with the lesson on the Endocrine System, which was not yet studied. When students were told that they should return to the regular classroom because of the problem, they chose instead to stay and work with that program although it was not as yet studied. Many were so motivated that they delved into their textbooks to get help in answering the questions on the Endocrine System. The writer followed up on that problem by calling Focus Media, New York, to send the correct programs. They arrived two weeks later.

(e) Parental Involvement

The first week of the implementation, the writer sent introductory letters to all members of the target population. He introduced himself, included some of the course objectives, his homework policy, their role in monitoring their child's homework. He included a contract for parents and child to sign regarding attendance, materials and homework. He followed the letter up by a telephone call to emphasize the main points in the letter and to get verbal commitment from parents to have their child in school regularly and punctually, and with the appropriate school supplies. The writer tried to create a good working relationship with the parents. Every four weeks he sent home an

interim progress report indicating scholarship, effort, behavior and attendance. In situations where students were still not attending school regularly and punctually, he followed up with a telephone call. In a few cases, parent conferences were held to work on persistent problems such as lack of supplies and tardies. For these students, daily progress reports were given.

Additionally, students were permitted to take home their class folders to show their parents. Parents were asked to sign that they checked their child's work. The writer, further, tried to involve the parents as much as possible in scheduling times for detention, make up time for tests, and make up time for missed assignments. Occasionally, he sent parents little notes like "Your child was great today. He/she got an 'A' for conduct or test"; "Your child deserves a special gift for doing well on test . . . ."

There were three parents without telephones; contacts were made through relatives, or letters were sent home. Two parents went out of town for an extended period. The writer kept in touch with the grandparents with whom the children were staying. There were three parents for whom it was difficult to establish a good working relationship. They were unsupportive and uncooperative of any efforts made by

the writer. They did not seem to like the school and believed that their children would have done better elsewhere. One student dropped out of school during the implementation period because of her pregnancy. She went to an alternate school.

Because of the relationship established with the majority of the parents, they frequently telephoned the writer or sent messages about impending absences or problems their children were experiencing. The writer was able to adjust the class requirements for those students.

CHAPTER V

RESULTS, DISCUSSION AND RECOMMENDATIONS

Results

Briefly, the problem was that of low self-esteem among 20 low achieving tenth grade students in one fundamental biology class. In order to help correct this problem, several intervention strategies were employed. These included positive self-referent verbal statements (PSRVS), incentives, group activities, computer assisted instruction (CAI) and peer tutoring, and parental involvement. The implementation process was of 12 weeks duration.

There were three main categories of objectives, each with minor ones. The evaluation instrument used was the Self-Esteem Observation Checklist designed by the writer (see Appendix A).

(1) Behavior. (a) The objective was for 26 students to show active class participation. Twenty-seven (27) students out of 31 showed active class participation. (b) Twenty-nine (29) students were expected to display acceptable classroom behavior. Twenty-eight (28) displayed acceptable classroom behavior. (c) Twenty-nine (29) students were expected to refrain from slumping over their desks/tables. Thirty (30) students achieved this objective.

(d) Twenty-nine (29) students were projected to be habitually punctual for class. There were 29 students who were frequently punctual for class. (e) Twenty-seven (27) were expected to be regularly present in class; again, 27 students were regularly present. (f) Twenty-nine (29) students were expected to display willingness to work with other students. However, 30 students showed willingness to work with other students.

(2) Communication. (g) Twenty-five (25) students were expected to freely express their own opinion during class discussions. Twenty-four (24) students were observed to express their opinion freely. (h) Twenty-seven (27) students were projected to speak in an audible, coherent way. Twenty-nine (29) students spoke in an audible, coherent way. (i) Twenty-six (26) students were expected to say positive things about themselves. Thirty (30) students made positive statements about themselves on a regular basis. (j) Twenty-six (26) students were expected to speak to each other on friendly terms. Thirty (30) students spoke to each other on friendly terms.

(3) Self-confidence. (k) Twenty-eight (28) students were expected to submit clean, tidy and organized work. Twenty-three (23) students turned in clean, neat and organized work. (l) Twenty-seven (27)

students were projected to have direct eye contact with teacher. Twenty-seven (27) students regularly had direct eye contact with teacher. (m) Twenty-seven (27) students were expected to be well prepared for class. Twenty-seven (27) students were well prepared for class. (n) Twenty-six (26) students were expected to express positive views of being successful on weekly tests. Thirty (30) students expressed positive views of being successful on weekly tests. (See Tables 2 and 3; for expected results compared to observed results, and pre and post observation data, respectively.)

Table 2.

Data Table Showing the Number of Students Displaying Indicators of Self-Esteem after Implementation Compared to Those Expected to do so.

Indicator of Self-Esteem	No. of Students Expected	No. of Students Observed
Behavior		
Show active class participation	26	27
Display acceptable classroom behavior	29	28
Refrain from slumping over desk/table	29	30
Habitually punctual for class	29	29
Regularly present in class	27	27
Display willingness to work with other students	29	30
Communication		
Students will freely express their opinion	25	24
Speak in audible, coherent way	27	29
Say positive things about themselves	27	29
Speak to each other in friendly terms	26	30
Self-confidence		
Submit clean, tidy and organized work	28	23
Have direct eye contact with teacher	27	27
Well prepared for class	27	27
Express positive views of being successful on weekly tests	26	30

Table 3.

Indicators of Low Self-Esteem Manifested by Students Pre and Post Observation.

Indicators	Pre Observation	Post Observation
Behavior		
No class participation	15	4
Displaying poor classroom behavior	6	3
Slumping over desk/chair	4	1
Habitually tardy for class	13	2
Regularly absent from class	11	4
Unwilling to work with other students	10	1
Communication		
Reluctant to express opinion	16	7
Speak in incoherent, monotonous tone of voice	7	2
Make negative self-appraisals	13	2
Highly critical of classmates	6	1
Self-confidence		
Submitting sloppy or untidy class work	8	8
Little or no eye contact with teacher	7	4
Unprepared for class	10	4
Expecting to fail biology course	12	1

Discussion

There were 14 objectives grouped under three categories--behavior, communication, and self-confidence. In all objectives, except three, observed results equalled or exceeded expected results.

The success of the implementation process could be due to the wide variety of intervention strategies used. The successes in some objectives may be linked to specific solutions while others may be due to a combination of all solutions tried. For example, the successes in the following objectives may be directly linked to the positive self-referent verbal statements (PSRVS) activities students were involved in weekly: Students saying positive things about themselves, speaking to each other on friendly terms, having direct eye contact with teacher, expressing positive views of being successful on weekly tests. The overwhelming success of using PSRVS solutions could be due to the frequency with which students were involved in these activities. These findings are similar to those of Lane and Muller (1977) and Gurney (1987) who found that the frequency of students using PSRVS statements can cause a significant improvement in their self-concept. Furthermore, the success of the following objectives may be directly linked to group activities: students showing active class participation and displaying

willingness to work with other students. Again, these findings are similar to those of Schultz (1990, p. 44) who stated in reference to group activities her students were involved in ". . . . my students are now satisfying some of their needs for freedom and love or at least for fellowship and fun."

Additionally, the success of the following objectives may be linked to parental involvement: habitually punctual for class, regularly present in class and well prepared for class. The positive relationship developed by the writer with parents may have been a contributing factor in this regard. Parents like to be kept informed of their children's progress and seemed to want to be involved in their education. On the whole, they were supportive in getting their children to school on time and on a regular basis. Henderson (1987), similarly, found that the self-esteem of students improved when parents were involved in the educational process.

Motivating techniques, such as CAI, seemed to have been useful to help strengthen self-confidence and acceptable behavior. These programs helped to reinforce course objectives and to encourage students to get along with each other. Computers help to give students the feeling that they are keeping up with technology. Computers are not abusive or critical, and

because the software programs were user friendly in every sense of the word, students developed in self-assurance and wanted to use them. Computers have implications for improved academic achievement, improved classroom behavior, to build confidence and help students to maximize the use of time. These findings compared favorably with those of Roblyer, Castine and King (1988), who found that CAI in science not only improved students' achievement levels but also their self-concept.

There are several other implications for these significant results. Students who are encouraged to say positive things about themselves on a regular basis soon believe in themselves and act accordingly. On the contrary, if they hear negative criticisms frequently, they will believe that they are failures and unimportant. It is the responsibility of teachers, friends and parents to say those things to students that will cause them to feel better about themselves. Furthermore, group activities are important to help develop self-image, to share responsibility, and to become accountable. Teachers should grasp the opportunity to involve every student in situations in which they feel relaxed and confident to express their views. By so doing, hidden talents may surface, giving youngsters a new spring in life which may help to

develop their self-confidence and help in self-motivation.

The involvement of parents in their children's education could help solve the mystery of the ineffectiveness of so many educational innovations. It is of paramount importance that parents become involved in as many ways possible in the educational process. Parents seem to appreciate when teachers talk with them, especially when something positive is used to start the conversation. Some parents confide much in teachers about their family, and this knowledge may be important to help understand and treat the problems that their children may have. It is difficult for a secondary school teacher, having over 150 students, to keep in close touch with all parents, but a common introductory letter at the start of the school year may help to start and build a positive relationship.

Further, it seems that students of all ages respond well to incentives, irrespective of how small. Incentives do not need to cost money. Simple things: smiling face, hand clap, pat on the shoulder, a sticker, teacher assistant, can all help improve students' feelings about themselves and their abilities.

There were three main objectives which were not met at the level expected. However, two of these were

better than the baseline data (see Table 3). Twenty-eight (28) students displayed acceptable classroom behavior instead of 29 as was projected. There were 25 students who displayed appropriate classroom behavior at the start of the implementation. There were three students, therefore, who showed improved behavior. Some behavior problems are psychological in nature, and with all the effort that teachers make, those problems still persist with some students. The teacher has to learn to cope with such a situation.

Twenty-four (24) students expressed opinions freely instead of the 25 anticipated. This shows a gain over the baseline data of nine students, which is quite significant (N=31). It may be that the target of 25 was unrealistic. Some students have language problems and some lack knowledge and experience about certain issues for them to express themselves freely.

Twenty-three (23) students submitted clean, tidy and organized work regularly instead of 28 students anticipated. At the start of the implementation, 23 students were turning in clean, neat and organized work. Therefore, there was no net gain nor loss. Penmanship and neatness develop from proper habits. Maybe the skills of using a ruler to draw straight lines, using underlined headings, writing neatly are not being reinforced in other classes. Because of

this, some students did not seem to understand the need to take more pride in their presentation of work.

One outcome that was not anticipated in this practicum was that five members of the target population were nominated by their other teachers to be members of the school's "crime watch" program. Two were invited by the director of school activities to be a "FAN" member. These students were assigned to new students to help them adjust to their new school environment. These students seemed to have been selected based on their improved attitudes and behavior in class.

The self-esteem of students, who are low achievers, may be improved through the use of several intervention strategies. These include personal self-referent verbal statements (PSRVS), group activities, incentive programs, motivation techniques such as computer assisted instruction (CAI) and parental involvement.

Recommendations

There are several recommendations that can be made that may be of benefit to other teachers. These include the following.

1. Teachers should try to study and analyze the problems that students present in the classroom.

2. Teachers should evaluate the nature and causes of these problems.

3. Based upon their findings, they should design solutions to help students adjust and cope. In other words, teachers should be proactive.

4. It is important to involve parents/guardians in studying problems and searching for solutions as many problems have their origin in the home. Parents are important human resources.

5. Solutions should be varied and student centered. This will help to capture and maintain students' interest in their course work activities.

6. Teachers should communicate with other teachers of the students to share ideas and plan strategies.

These recommendations will be made to teachers during informal discussions, during departmental meetings, and at inservice workshops. These will be suggested to teachers who have similar student population.

Dissemination

At the start of the implementation process, the writer's colleagues in the science department were skeptical about the merits of the effort he was making to assist his low achievers. Common comments were "You cannot do much to help low level students. It is a big

task just to get them to sit down!" But four weeks into the implementation, the writer's neighboring colleagues were asking "What are you doing to keep those kids so quiet and interested in their work?" For these teachers, the practicum results have had an impact by diffusion. But now that the results have been significant, the writer intends to disseminate the practicum study, implementation and results to departmental colleagues and to the school's administration. He hopes to include an article in the school's newspaper summarizing the outcomes of the practicum.

Further afield, the writer hopes to discuss the practicum with his cluster members, fellow teachers at seminars. He wishes to have the practicum published by the Educational Resource Information Center (ERIC).

Reference List

Ascher, C. (1986). Cooperative Learning in the Urban Classroom. (Office of Educational Research and Improvement, Washington, D.C.) ED #273717.

Bossing, L., & Sasseen, B. (1980). Building Positive Self Concepts in Fourth Grade Students. Research Report (143), University of Kentucky. Research and Dev. Center for Teacher Education #212366.

Canfield, J., & Wells, H. (1976) (BIP). 100 Ways to Enhance Self-Concept in the Classroom. Englewood Cliffs, New Jersey: Prentice Hall, Inc.

Clark, B. (1988). Growing Up Gifted. 3rd Edition, Columbus: Merrill Publishing Company.

Cohen, P., & Kulik, J. (1981). Synthesis of research on the effects of tutoring. Educational Leadership, 29, 227-229.

Coopersmith, S. (1967). The Antecedents of Self Esteem. San Francisco: W. A. Freeman.

Dalton, D. W., & Hannefin, M. J. (1985). Examining the Effects of Varied Computer-Based Reinforcement on Self-Esteem and Achievement: An Exploratory Study. Paper presented at the Annual Convention of the Association for Educational Communications and Technology (Anaheim, CA).

Emerson, R. W. (1981). Self-Esteem: A Classroom Affair. Stanford, California: Holt, Rhinehart and Winston, Inc.

Emihovich, C., & Miller, G. E. (1988). Effects of Logo and CAI on Black First Graders' Achievement, Reflectivity and Self-Esteem. Elementary School Journal, 88(5), 473-87.

Fenton, B. (1981). Accenting the Positive. Journal of Educational Research, 21(3), 213-235.

Gurney, P. (1987). Self Esteem Enhancement in Children: A Review of Research Findings. Educational Research, 29(2), 130-136.

Henderson, P. A. (1987). Effects of Planned Parental Involvement in Affective Education. School Counselor, 35(1), 22-27.

Hines, S., & Seidman, S. A. (1988). The Effects of Selected CAI Design Strategies on Achievement, and an Exploration of Other Related Factors. Paper presented at the Annual Meeting of the Association for Educational Communications Technology (New Orleans, LA) ED #295645.

Hooper, S., & Hannefin, M. J. (1988). Cooperative Learning at the Computer: Ability Based Strategies for Implementation. Paper presented at the Annual Meeting of the Association for Educational

Communications and Technology (New Orleans, LA) ED #295647.

Land, W. A. (1984). Peer Tutoring: Student Achievement and Self-Concept as Reviewed in Selected Literature. Paper presented at the Annual Conference of the Mid-South Edu. Res. Assn. (New Orleans, LA) ED #252,302.

Lane, J., & Muller, D. (1977). The Effect of Altering Self-Descriptive Behavior on Self-Concept and Classroom Behavior. The Journal of Psychology, 97 (3), 115-125.

Lazarus, P. J. (1982). Correlation of Shyness and Self Esteem for Elementary School Children. Perceptual and Motor Skills, 55(1), 8-10.

McGough, R. L., & Kazanas, H. C. (1979). Relationship of Self-Concept Meaning and Value of Disadvantaged and Non-Disadvantaged Students. Journal of Industrial Teacher Education, 16(2), 45-55.

Mischel, W. (1986). Introduction to Personality. 4th Edition. Stanford, California: Holt, Rinehart and Winston.

Paterson, K., Kauchak, D., & Yaakobi, D. (1980). Science Students' Role-Specific Self-Concept: Course, Success, and Gender. Science Education, 64(2), 169-174.

Price, K., & Dequine, M. (1982). Peer tutoring: It builds skills and self-concept. Academic Therapy, 17, 365-371.

Robertson, E. B. (1987). Enhancement of Self-Esteem Through the Use of Computer-Assisted Instruction. Journal of Educational Research, 80(5), 314-316.

Roblyer, M. D., Castine, W. H., & King, F. J. (1988). Assessing the Impact of Computer-based Instruction: A Review of Recent Research. Computers in the Schools, 5, 3-4.

Schultz, J. L. (1990). Cooperative Learning: Refining the Process. Educational Leadership, 47 (4), 43-45.

Slavin, R. E. (1980). Cooperative Learning. Review of Educational Research, 50(2), 315-42).

Sullivan, F. D. (1983). Emphasis on Latin American Cultures. Disadvantaged Pupil Program Fund. Eval. Report. Cleveland Public Schools, OH. Dept. of Research and Analysis. ED #236294.

Talton, E. L., & Simpson, R. D. (1986). Relationships of Attitudes Toward Self, Family, and School with Attitude Toward Science Among Adolescents. Science Education, 70(4), 365-374.

The Miami Herald. (1988). Self-Esteem. The Miami Herald Education Supplement, Dade, Miami, FL 33132.

Watkins, D., & Astilla, E. (1980). Self-Esteem and School Achievement of Filipino Girls. The Journal of Psychology, 105, 3-5.

Williams, J. W., & Stith, M. (1980). Middle Childhood. New York, New York: MacMillan Publishing Company.

Woodward, J., Carnine, B., & Gersten, T. (1988). Teaching Problem Solving Through Computer Simulation. American Educational Research Journal, 25(1), 72-86.

APPENDIX A

Self-Esteem Observation Checklist

Number of students in target population. _____

Dates of observation. _____

Indicators	Total no. of Students
(1) Behavior	
(a) no class participation	_____
(b) displaying poor classroom behavior	_____
(c) slumping over desk/table	_____
(d) habitually tardy for class	_____
(e) regularly absent from class	_____
(f) unwilling to work with other students	_____
(2) Communication	
(g) reluctant to express opinion	_____
(h) speak in an incoherent, monotonous tone of voice	_____
(i) make negative self-appraisals	_____
(j) highly critical of classmates	_____
(3) Self-Confidence	
(k) submitting sloppy or untidy classwork	_____
(l) little or no eye contact with teacher	_____
(m) unprepared for class	_____
(n) expecting to fail biology course	_____